

Utility of *Ghrita* in Treatment of *Unmada* (Unstable Mind) with special reference to Charaka Samhita

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Abstract. Classifying 'Unmada' as psychiatric, psychological or psychosomatic disorder only limits the understanding of this vast but seldom understood subject. In Charaka Samhita, the clear etiopathogenesis and subsequent line of treatment indicates both internal pathology as well as external causes including but not limited to diet, mental strength, physical injury and emotional trauma. However, irrespective of the etiopathogenesis, a strong focus on the use of Ghrita based medication to consumption of ghee as it has been observed in relation to internal medication. This perspective study discussed references and possible mode of action of Ghrita, especially *Purana* Ghrita (old clarified butter) in treatment of mind related pathologies.

 ${\bf Keywords.}$ Charaka Samhita, Ghrita, Internal medicine, PuranaGhrita, Unmada

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Introduction

'Unmada roga' was first independently described in the Charaka Samhita and later in Yogaratnakara. Unmada roga refers to any pathology in which the normal mental function is impaired. The etiopathogenesis is described as 'developing from improper diet', 'being possessed by supernatural forces', physical trauma, and so on [1]. However, both texts emphasize on the use of 'Ghrita Kalpana' (preparation made by processing herbal drugs in clarified butter), especially made from Ghrita (clarified butter) kept for a longer period of time aged (Purana) Ghrita along with other therapies like shodhana (body purification therapy), dhooma (fumigation and smoke inhalation), Anjana (collyrium), ashvasana (consoling and counselling), mantra (chanting and sound) and daiva-vyapashraya chikitsa (spiritual and religious practices) [1, 2].

Ghrita has been mentioned since Vedic times for its beneficial properties in both dietetics and religious practices. All classic Ayurvedic texts Charaka Samhita, Sahasrayoga, Yogaratnakara and other contemporary texts, different Ghrita Kalpana have been described. Most of the internal therapeutic recipes for Unmada Roga are, however, Ghrita based. The present study provided perspective on utility of Ghrita and Ghrita Kalpana as described in Charaka Samhita for Unmada with reference to modern science theories.

Signs and symptoms of Unmada as in Ayurveda

Unmada is an umbrella term which includes general psychological signs and symptoms such as dhivibhrama (intellectual confusion), sattva pariplava (decreased or fickle mental strength/alertness/mindfulness), Drishti adheerata (rapid ocular movements and unclear vision/hallucination/unstable vision), abaddha vaktvam (incoherent speech), hrudayam cha shunyam (feeling of vacuum in the chest). The text reiterates that someone suffering these general signs and symptoms is unable to experience pleasure and sorrow, is unable to carry out everyday functions, is unable to follow appropriate conduct and looses

peace of mind, thereby loosing memory, intellect and recognition [1]. There are further specific signs and symptoms as per the cause, that is, nija (internal factors or physiological cause) or agantuja (external factors or trauma) or the Dosha -vata, pitta, kapha, sannipata (internal physio-pathological factors) involved [1].

Ghrita recipes for Unmada in Charaka Samhita

Charaka Samhita lists out the following Ghrita recipes with benefits (Table 1) [1].

Various recipes for treating Unmada Chikitsa mentioned in Charaka Samhita utilizes Ghrita as part of formulation. One of the best property of Ghrita is that it imbibes the property of the drug (herbal combination) added to it providing a collaborative action in combination [3]. Along with Charak Samhita, various other Indian ayurvedic text suggest the use of Ghrita as an adjuvant with the other herbal combination for the treatment of Unmada. They also suggest the amount to be used in per dose of the drug. For example Sarth Rasa Chandanshu, Yog Ratnakar, Rasendra Chintamani, Bhaishajya Ratnawali, and Rasa Raj Sundar instruct to use 750 mg per dose, while Rasendra Kalpadrum, Rasa Sanket Kalika, Rasendra Sara Sangrah, and Rasendra Chintamani suggest use of 1.5 gm, 1.5 gm, 350 mg and 350 mg per dose respectively. This Ghrita is having madur(sweet) rasa, shita veerya (cool in potency), snigdha (unctuous), guru (heavy) guna and vattapittakaphahar property (alleviate vatta, pitta and kaphadosha) [2, 4].

Utility of Aged (*Purana*) Ghrita in Unmada Roga

Classically, *Purana* Ghrita recommends Ghrita to be atleast 10 years old and their characteristics as Lac in colour (reddish), Sheeta (cold in potency), Katu Tiktakam (spicy and bitter taste) and having Ugragandha (a strong smell). Such Ghrita is capable of overcoming all the three Dosha, relieving from influence of Graha, promoting intellect (Medhya), and it is best for purification process (Virechana agrya).

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	Name of Recipe	Benefits
1.	Hingvadya Ghrita	Unmada Nashana (balances unstable mind)
2.	Kalyanaka Ghrita	Apasmar (epileptic conditions), jwara (fevers), Kasa (Cough), Shosha (Emaciation), Vatarakta (Gout, Rheumatoid arthritis), Pratishyaya (coryza), chhardi (vomitting), arsha (piles), Mutrakruchhra (dysuria), Visarpa (erysipelas, herpes), pandu (anaemia), Unmada, Meha (Obstinate urinary disorders, including polyuria, nocturia and diabetes), gadgada (speech impairment/ stammering or lulling speech), Achetas (loss of consciousness), Vandhyatwa (Female infertility), Bhuta (Influences/ Possession by Supernatural beings), Kandu (Itching), Visha (Poisoning)
3.	Mahakalyanaka Ghrita	Bruhana (improves physique), Sannipatahara (Overcomes Unmada caused by all three dosha)
4.	Mahapaishachika Ghrita	Budhhikara (Improves intellect, Smritikara (improves memory), Baalanam Angavardhanam (Improves physique in children)
5.	Lashunadya Ghrita	Agantuja unmade (Psychological impairment caused by physical trauma), Vishama jwara (Recurrent acute fever- comparable to malaria), Apasmara (epilepsy)
6.	Siddha, Purana Ghrita	Apasmara, Unmada, Graha (Planetary/Demonaic influence)

Table 1: Ghrita recipes in Charaka Samhita Unmada Chikitsa

Even its smell or use by nasal route has excellent benefits if it cannot be administered orally [1]. Vata dosha and Medha are the controller of the mind [5] and the property of Pitta [6] respectively, therefore, the Vatapitta hara property of Ghrita is useful in the treatment of psychiatric illness like Unmada .

Most of the Kalpana described in the classics and mentioned in Table 1 improve intellect, memory and awareness as part of their many benefits. Previously, Madhavi (2016) in the report 'a critical review on the usage of Ghrita in Unmada' elaborately mentioned Ghrita usage in Ayurvedic formulations [6]. Ghrita has the capacity to cross the blood brain barrier and do target drug delivery. Hence, most psychological, psychosomatic and psychiatric conditions have Ghrita kalpana as their line of treatment [7], in which Ghrita incorporates herbal drugs hav-

ing the rapeutic effects on cognitive impairment, memory and some that also act as psychotherapeutics.

An important study carried out on Purana Ghrita (15 years old) showed higher presence of Myristic Acid, Palmitic Acid and Linoleic Acid than that of fresh Ghrita [7]. The study evaluated the difference between fresh Ghrita and Purana Ghrita, where fresh Ghrita had more Capric Acid, Lauric Acid, Oleic Acid and Stearic acid, acting as anti-oxidant, increasing energy and maintaining healthy cholesterol levels, supporting its claim of increasing energy, underlining its preference in everyday use and for oral intake. On the other hand, Purana Ghrita had long chain fatty acids Palmitic, Myristic and Linoleic acids which increase serum cholesterol in a balanced manner [7]. Longer fatty chain acids are better transmitted through blood brain barrier, explaining its importance and beneficial effect on central nervous system disorders, nerve disorders and deep tissue pathologies [7]. This justifies the classical claim of it helping gain weight and mass [1, 2]. Classical texts, especially Charaka Samhita give more stress on the use of aged (Purana) Ghrita, even in the other recipes. This also corresponds to the classical literature stress on Purana Ghrita used for preparations which are indicated in Shodhana (purification therapies), nasya (nasal route administration) and its indication for oral intake in small quantities [1, 2, 8].

Potential mode of action of Ghrita in Ayurvedic formulations

The brain is a fragile organ of nervous system and it is highly sensitive which requires a regular supply of fuels, gases, and nutrients to maintain the vital functions and homeostasis. The bloodbrain barrier prevents the uptake of most of the components and pharmaceuticals by brain. It is a vasculature of the central nervous system that imposes various obstacles by acting as a physical barrier. It inhibits the delivery of therapeutic agents to the central nervous system. This property of blood-brain barrier arises from the epithelial-like tight junctions within the brain capillary endothelium. The choroid plexus differentiates the blood-brain barrier anatomically and functionally from the blood-cerebrospinal fluid barrier. Though small lipid- mediated molecules can freely diffuse through the bloodbrain barrier [9, 10]. A study carried out regarding use of Ghrita kalpana stressed on the ability of Ghrita to cross the Blood Brain Barrier based on its lipid constituents and hence, carry the phytochemicals extracted into Ghrita to the target cells [2]. The drug distribution in blood is mainly the cause of the difference in blood flow, ionization and lipid solubility. The peculiar property of lipids is that they are readily available to extra and intra cellular spaces and blood brain barrier has a lipophilic molecular structure, which makes the lipids (ghrita) and lipid soluble drugs easily transport through blood-brain barrier. While an aqueous soluble drug has limit and usually absorbed in extra cellular spaces of the cell. They do not diffuse through cerebrospinal fluid and other body cavities. Thus, Ghrita being lipid in nature is rapidly absorbed in the target areas of central nervous system. Additionally, traditionally (Indian traditions) prepared Ghrita contains docosahexaenoic acid, and an omega 3 long chain poly unsaturated fatty acid, which is also present in high concentration in brain cells too. Scientifically experimented studies shows that docosahexaenoic acid has positive outcome in cognitive decline and Ghrita is known to have antioxidant property which repairs the brain cells by acting upon the degenerative brain cells [6, 7, 9, 11].

Conclusion

The present perspective study considering both classical and modern theories emphasizes on the therapeutic value and utility of *Purana* Ghrita in psychological, psychosomatic and psychiatric impairment. Just like internal medication along with non-medicinal conventional therapies, these *Purana* Ghrita is advised along with other non-medicinal conventional therapies in ayurvedic classics as a way to increase awareness in the patient and hence, their acquiescence to be treated as well as to improve natural brain function. In an increasingly stressful environment, potential of Ghrita Kalpana needs to be clinically evaluated and researched.

Compliance with ethical standards Not required. Conflict of interest The authors declare that they have no conflict of interest.

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